

DNA Isolation from Tissue

DNA extraction from tissue using *prepGEM™*

This method is recommended for DNA extraction directly from tissue. Incubations can be performed either in a thermal cycler, water bath, or using an automated robotic workstation fitted with Peltier temperature-controlled heating blocks.

This method is intended to be a starting point for evaluating the enzyme. The method should be optimised for the specific requirements of the test and tissue type.

Extraction Method

1. Place 1-2 mm² tissue samples into a 96-well standard PCR plate or tube.
2. Add 80 µl of *prepGEM™* buffer 3 and 1 µl of *prepGEM™* [NOTE1], to each sample.
3. Incubate at 75 °C for 15 minutes.
Incubate at 95-99°C for 5 minutes. [NOTE2]
4. 1-2 µl of the resulting digest is suitable for PCR [NOTE3].

NOTE1: 10 x Buffer is supplied. *prepGEM™* and buffer can be added as a master mix.

NOTE2: Both the 15 and 5 min. incubation steps may be reduced further through optimisation.

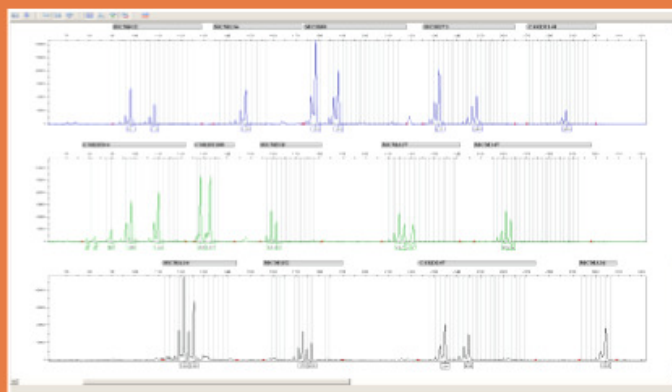
NOTE3: Depending on the application, the DNA may require diluting to prevent over-amplification. Dilution can be carried out after extraction, or optimise buffer volumes prior to extraction. Larger sample sizes of 20 mg may be digested, bearing in mind that complete degradation of the material is not necessary.

prepGEM™ has been shown to be extremely robust for tissue samples. The resulting digest may also be briefly spun to remove debris, and transferred to a new tube.

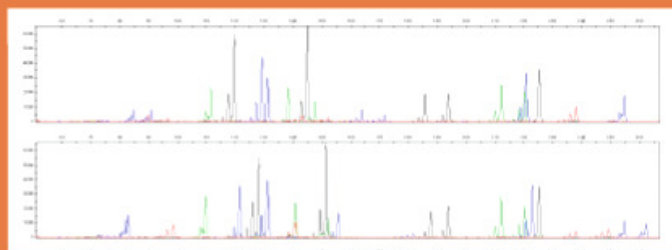
TISSUE

Typical Results

prepGEM™ delivers excellent results from high throughput tissue samples for large plex microsatellite or SNP analysis, simply, and in as little as 10 to 15 minutes!



14-plex microsatellite panel from sheep tissue, 1-2 µl of extract in a 6 µl reaction.



14-plex microsatellite panel from cattle tissue, 1-2 µl of extract in a 6 µl reaction.